PATENT
Case M 6817 HADH

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

OFFICIAL

In re: Application of
Sobonya et al.

Confirmation No. 1960

Serial No. 09/891,568
Filed: June 26, 2001
Confirmation No. 1960

Examiner: U. C. Ruddock
Art Unit: 1771

TITLE: COMPOSITE SHEET MATERIAL

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Commissioner for Patents on the date shown below.

8-13-04
Date

Mary Lynne Carlisle
Signature of certifier

Mary Lynne Carlisle
Typed or printed name of certifier

DECLARATION UNDER 37 C.F.R. 1.131

I, Elizabeth Flores, do hereby declare:

1. That I was granted a Bachelor of Science degree in chemistry by Kent State University in 1987;
2. That from 1987 until 1992 I was employed as a Pressure Sensitive Adhesive Chemist by the B. F. Goodrich Company;
3. That from 1992 until 1998 I was employed as a Formulated Printing Ink Chemist by the B.F. Goodrich Company;
4. That in 1997 I was granted a Master of Science degree in Polymer Science by the University of Akron;
5. That from 1998 to the present I have been employed as a Product Development Engineer by Henkel Consumer Adhesives;
6. That the Manco Quality Assurance Report attached hereto was prepared by me and is a report of tests of the coefficient of friction of shelf liner materials which were prepared by a manufacturing company according to Manco Specifications;
7. That the tests results shown in the report were results of tests carried out by me;

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8. That the samples were prepared and tested by me according to Manco Procedure HS2A in a program to determine the commercial viability of the Easy Liner concept;
9. That the solid blue and solid white materials were a polyester scrim embedded in a continuous coating of a foamed, plasticized, polyvinylchloride resin;
10. That the tests were carried out and the report issued before April 2001;
11. That the Manco Qualilty Assurance Report is a report which is maintained in the ordinary course of business;
12. That all statements made of my own knowledge are true and that all statements made on information and belief are believed to be true;
13. That I have been informed that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Further Declarant sayeth not.

_____ _____

Date Elizabeth Flores

Manco Quality Assurance Report

Date: [redacted]
Project # [redacted]
Prepared by: Beth Flores

Objective: Evaluate new solid material [redacted]

Sample Description: Solid Easy Liner to be used for Solid Designer Easy Lin[redacted]
Two Unprinted Samples: One blue and one white.
[redacted]

Results: Thickness was measured with an Ames Foam Gauge, the weight by measuring (2) one square foot samples and taking an average. Co-efficient of friction is tested according to Manco test method HS2A.

[redacted]

	Thickness (mil)	Weight (g/ft2)	COF
Solid - Blue	45	62.5	2.2
Solid - White	73	50.1	3.1
[redacted]			

Conclusions: The table above shows the range of non-slip liners supplied to Manco. The blue solid liner is the heaviest liner supplied[redacted] The blue liner has much less air blown into it than the white solid liner. This makes it harder to control pinholes and is therefore expected that the thinner product will need a higher coating weight.

COF is the coefficient of friction and the number represents the non-slip character of the product. A higher number indicates that the liner is less likely to slip. Factors affecting this number is the surface contact area and the softness of the product. A value difference of more than 0.3 may be considered significantly different. The solid white liner has a high COF because the entire test area of the material is in contact with the test surface and it is a soft material in comparison to the blue solid liner.

QUALITY ASSURANCE TESTING PROCEDURES CONFIDENTIAL

PROCEDURE TITLE

COEFFICIENT OF FRICTION (COF) TEST

PROCEDURE #: HS2A

I. INTRODUCTION

The purpose of the test is to measure the coefficient of friction between surfaces with non-slip characteristics and a standard test surface. The non-slip characteristic prevents movement of a product along a horizontal surface. Non-slip is a property found in a variety of foams and backings. The coefficient of friction for this test is based on static frictional forces of the non-slip surface, gliding in a horizontal plane and parallel to the standard test surface. The more friction that a foam or backing generates during this pull, the more non-slip properties it is said to have.

II. MATERIALS NEEDED

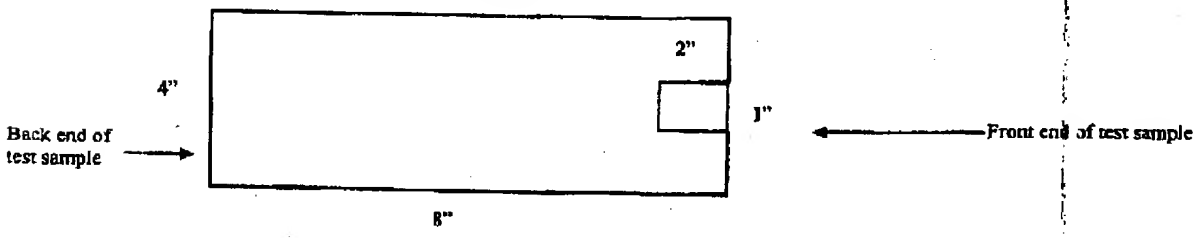
	Description
A. Non-slip test sample	Manco and/or competitor varieties
B. Standard test surface	30"x36" Plexiglas sheet
C. Weight	2- 2.2 lb weights (Total of 4.4 lbs or 2000g)
D. Pull gauge (digital Shimpo FGV-100)	100+ lb. capacity with hook attachment
E. Pull sled	3.5" x 6"x .5" wood block (weight approx. 4 oz.) with hook
F. Tape	Heavy Duty Tape (i.e. Duct tape, filament tape, hot melt tape)

III. SAMPLE/ SURFACE PREPARATION & TEST CONDITIONS

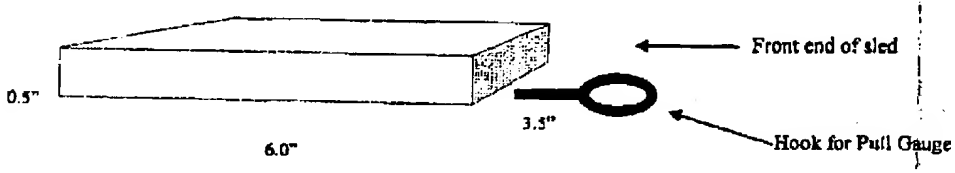
1. Cut out three 4"x 8" swatches of the sample material to be tested. The length of the samples should be parallel to the machine direction from the roll it was cut from.

2. Cut a 1"x 2" notch in all three samples to accommodate for the hook on the pull sled on one end of the sample as shown below, creating two tabs on the end of the sample.

TEST SAMPLE



PULL SLED



3. Clean the standard Plexiglas test surface to remove dirt or debris. Do this between every test.

4. Coefficient of Friction testing should take place in a climate controlled environment with ambient conditions of 72° F and 50% Relative Humidity.

QUALITY ASSURANCE TESTING PROCEDURES **CONFIDENTIAL**

PROCEDURE TITLE

COEFFICIENT OF FRICTION (COF) TEST

PROCEDURE #: HS2A

IV. TEST PROCEDURES

1. Lay the first test sample FOAM OR BACKING SIDE DOWN onto testing surface.

2. Place the pull sled on top of the sample, centering it so that the two ends of the test sample have 1" of overlap on each end of the pull sled.

3. Cut 4- 2" pieces of the heavy-duty tape.

4. Fold the ends of the test sample overlap over the pull sled. Affix each tab of the test sample to sled with the tape. Affix back end of test sample to back end of pull sled with the other two pieces of tape. **NOTE: Make sure that when affixing the tape to the sample that it does not go under the sled towards the testing surface. It may effect the coefficient of friction value.**

5. Place the pull sled with attached test sample on the far end of the standard Plexiglas surface so that the foam or backing to be tested is completely in contact with the Plexiglas surface.

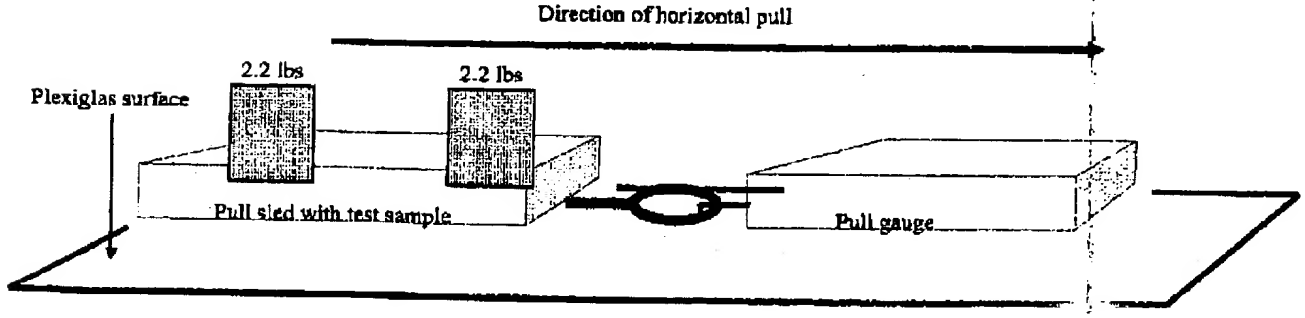
6. Place one 2.2 lb weight on the front end of the sled and the second 2.2 lb weight on the back end of the sled.

7. Set the pull gauge to read PEAK POUNDS and then zero the display screen.

8. Connect the hook attachment on the pull gauge to the hook on the end of the pull sled.

9. Holding the pull gauge, pull the sled with the attached test sample in a horizontal plane, parallel to the Plexiglas test surface. Pull the sled using a constant amount of force until the sled breaks the friction [illegible]es and slips along the Plexiglas. The pull gauge, in PEAK POUNDS mode, will record the static frictional force required to move the sled.

10. Repeat steps 1-9 for two more times and record the 3 PEAK POUNDS values.



QUALITY ASSURANCE TESTING PROCEDURES CONFIDENTIAL

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COEFFICIENT OF FRICTION (COF) TEST

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V. CALCULATIONS

To calculate coefficient of friction:

F_p = Force reading from pull gauge (Pounds of Pull)

F_w = Downward force on pull sled = 4.4 lbs + weight of sled

$$\text{Coefficient of Friction} = \frac{(F1_p + F2_p + F3_p)}{3\,F_w}$$

There are no units when recording Coefficient of Friction.
The higher the coefficient of friction the greater the non-slip properties of a foam or backing surface.